QUALITY SHINES.

Bayscript® JetBlack Series
High Quality Inkjet Black Dyes

QUALITY WORKS.

LANXESS
Energizing Chemistry

BAYSCRIPT® JETBLACK SERIES
FOR HIGH-QUALITY INKJET APPLICATIONS

The novel Bayscript® JetBlack series is designed to fulfill high quality requirements with regards to exceptional fastness properties. The Bayscript® JetBlack series offers highest light- and ozone fastness properties and support ink manufacturers who want to provide high-quality and durable ink materials and systems to their customers.

Various ink applications, such as inkjet printing including photo print, stationary inks, coding and marking, glass-, ceramic- and aluminum printing, benefit from the outstanding product characteristics of the new series.

- **High light- and ozone fastness**
- **High surface tension** to enable reliable droplet formation and ink flow
- **Low viscosity** for consistent ink flow
- **Excellent filterability** down to 0.20 µm filter
- **Extremely low salt content** to protect print heads and nozzles from corrosion
- **Absence of bivalent cations and heavy metals** for long-term storage stability
- **Different black shades** to fit customers' color standards
- **Highly soluble** in water and glycols
- **Perfect compatibility** with different customer systems and common inkjet solvents
- **REACH compliance**

Get in touch with our experts to discuss a tailored solution for high-quality inkjet applications according to your individual needs.

Applications

Suitable for inkjet printing on plain paper & photo inkjet paper, thermal & piezo inkjet printing heads in desktop, industrial and barcoding applications and stationary applications like fineliner, fountain pen and stamp pad inks.

Product specification

For each product, properties such as color strength (+/-5%), color shade (dE<1), pH value, salt content and viscosity are specified so that ink manufacturers can rely on consistent and high-quality raw materials.

Exceptional fastness properties

Besides a very beneficial impact on the printing process, LANXESS colorants are an essential factor for print and image durability. Among other named product benefits, the Bayscript® JetBlack series especially provide:

- fastness to light and UV radiation
- fastness to ozone and other oxidative air pollutants
- fastness to humidity and mechanical abrasion

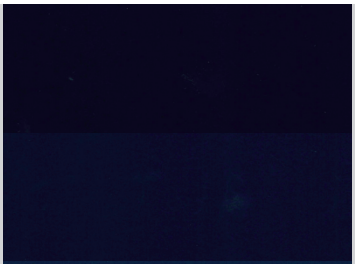
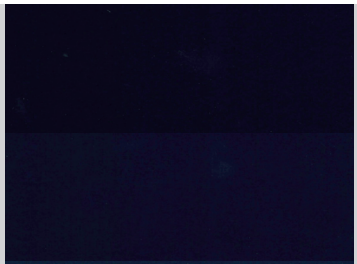
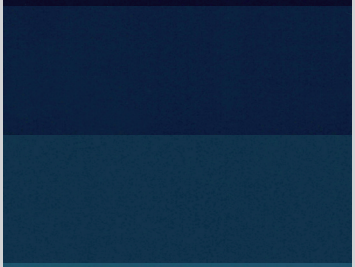
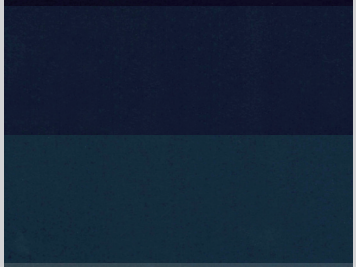
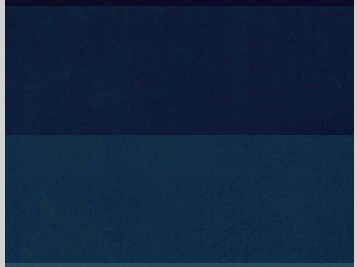
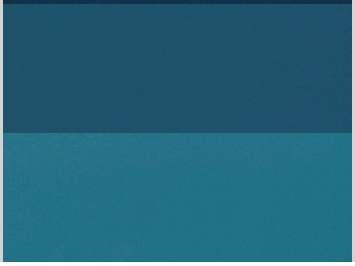
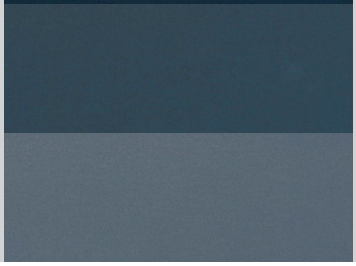
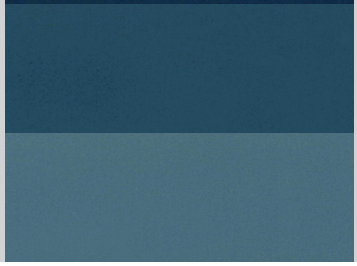
Coloristic characteristics

The pure Bayscript® JetBlack G product is a greenish black dye. If customers have different requirements about the shade, the pure dye can be shaded according to individual needs with other dyes. Alternatively, LANXESS provides the ready-shaded versions Bayscript® JetBlack TP LXS 51141 and Bayscript® JetBlack TP LXS 51142. Both mixtures represent more reddish color shades, being in line with existing LANXESS dyes such as Bayscript® Black SP liq. and N liq. as well as Special Black SP liq. and HF liq.

Ecological properties and regulations

The selection of a suitable colorant, especially for a defined application, depends on a wide range of criteria. LANXESS products meet up-to-date ecological requirements and are a reliable basis for ecological formulations. LANXESS Regulatory department is at your disposal to give guidance to find the right colorant for the intended use and is available upon request through your responsible sales manager.

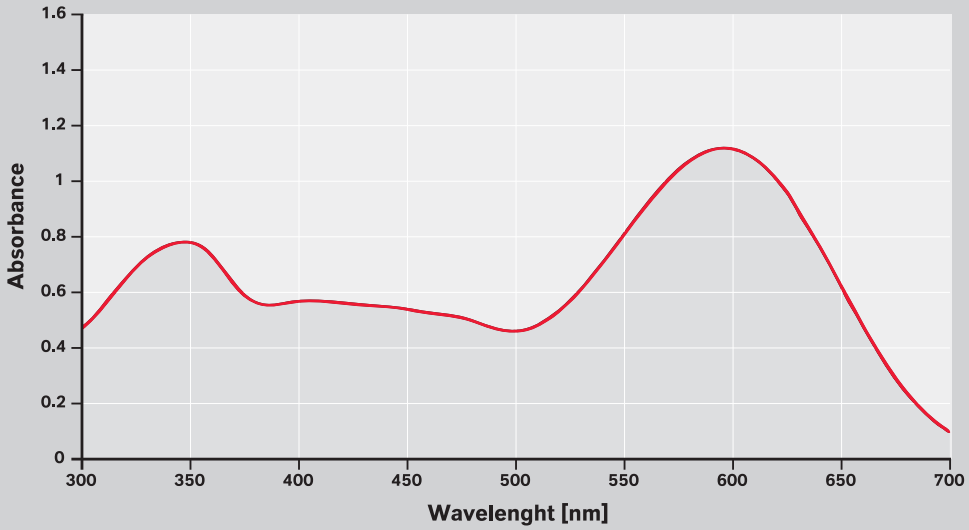
Properties	Bayscript® JetBlack G	Bayscript® JetBlack TP LXS 51141	Bayscript® JetBlack TP LXS 51142
Color Index Part I	Direct Black 205 (D.Bk.205)	Azo Mix	Azo Mix
Chemical class	Trisazo Dye	Tris & bisazo Dye	Tris & bisazo Dye
Form supplied	Aqueous Black liquid	Aqueous Black liquid	Aqueous Black liquid
Dye content	~ 19–22%	~ 20–22%	~ 20–22%
Color strength tolerance	95.0–105.0%	95.0–105.0%	95.0–105.0%
pH-value	7–9	7–9	7–9
Surface tension	> 50 mN/m	> 50 mN/m	> 50 mN/m
Light fastness	5	5	5
Ozone fastness	High	High	High
Solubility	Water miscible Glycols miscible	Water miscible Glycols miscible	Water miscible Glycols miscible
Ion content (ppm)	Chloride < 100 Sulfate < 200 Calcium < 40 Magnesium < 20 Silicon < 20 Iron < 30 Copper < 20	Chloride < 100 Sulfate < 200 Calcium < 40 Magnesium < 20 Silicon < 20 Iron < 30 Copper < 20	Chloride < 100 Sulfate < 200 Calcium < 40 Magnesium < 20 Silicon < 20 Iron < 30 Copper < 20
Storage stability	12 months from delivery ex plant; protect from freezing; Bayscript® JetBlack G is stable against weak acids and bases	12 months from delivery ex plant; protect from freezing; Bayscript® JetBlack TP LXS 51141 is stable against weak acids and bases	12 months from delivery ex plant; protect from freezing; Bayscript® JetBlack TP LXS 51142 is stable against weak acids and bases

Aqueous solution		Bayscript® JetBlack G	Bayscript® JetBlack TP LXS 51141	Bayscript® JetBlack TP LXS 51142
Diluted color effect	7.5%			
	5.0%			
	3.0%			
	2.0%			
	1.0%			
	0.5%			

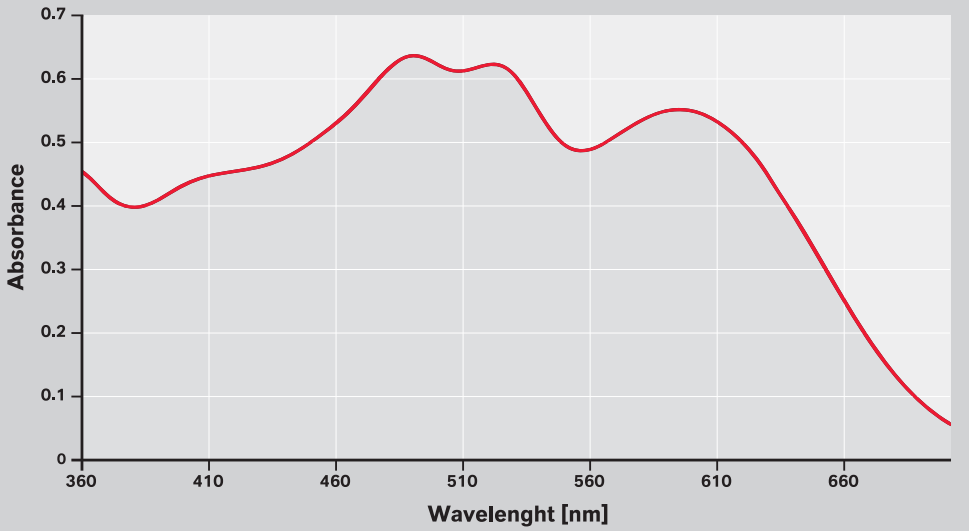
Printed colors serve as a guideline only. The actual product color will depend on application and concentration.

UV/Vis Spectrum

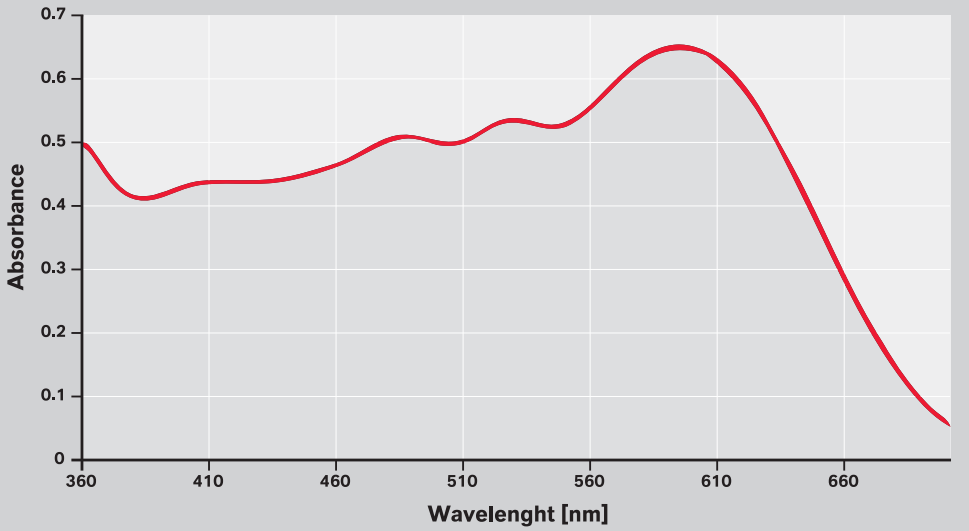
Bayscript® JetBlack G



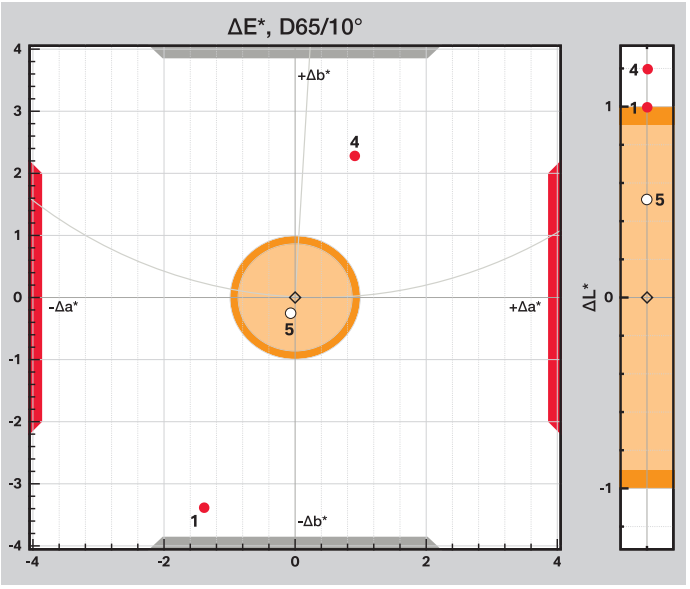
**Bayscript®
JetBlack TP LXS 51141**



**Bayscript®
JetBlack TP LXS 51142**



Product name	Label	E1/1	CIELAB values L*	a*	b*
Bayscript® Special Black SP liq.	◊	30.0	19.65	-0.35	-6.81
Bayscript® JetBlack G	●1	30.0	20.65	-1.74	-10.22
Bayscript® JetBlack TP LXS 51141	●4	30.0	20.85	0.54	-4.53
Bayscript® JetBlack TP LXS 51142	○5	30.0	20.17	-0.41	-7.06



Product	Ozone fastness Exposition time 0h	Ozone fastness Exposition time 6h	Light fastness Concentration E1/1 30.0
Special Black SP liq.			
Bayscript® JetBlack G			
Bayscript® JetBlack TP LXS 51141			
Bayscript® JetBlack TP LXS 51142			

	Analytical device: Anseros Ozone Climate Simulator SIM6200-TH	Analytical device: Atlas Xenotest Alpha
	Ozone concentration: 2 mg/kg	**DIN:** 54004
	Temperature: 50 °C	**Medium:** glossy photo paper
	Medium: glossy photo paper	**Exposition time:** 48h
	Exposition time: 0 and 6h	**Ink concentration:** E1/1: 30.0
	Humidity ink: 40% rel. moisture	
	Ink concentration: E1/1: 30.0	

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Energizing Chemistry

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